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An Essay

on

Cholera Morbus

by

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Cholera Morbus

Is a disease of warm climates in which it oc-curs at all seasons of the year. It is not confined ex-clusively to warm latitudes, but in temperate climates, it is nearly always in the warm season, particularly in the months of August and September, that it prevails. It is par-ticularly liable to appear when long continued heat, is al-ternated with heavy rains suddenly cooling the atmosphere. This disease has frequently raged as an Epidemic in the Tropical climates, and some authors, on account of its malignity and prevalence in those climates, have even as-serted it to be contagious, an opinion it appears to me not supported by sufficient evidence; the British settlements in India and the East India Islands, are the principal seats of this disease where it frequently rages with great mortality.

Authors differ exceedingly as to the cause of this disease. While some, as Cullen and Thomas, make the disease consist in an extraordinary secretion of

acrid Bile, produced by the action of heat upon the Hepatic system, others, as Johnson and Curtis, deny that Bile has any agency whatever in its production. John-son assigns as the cause of the disease an engorged state of the vessels of the Liver, produced by a sudden check of perspiration, He supposes that during the day, the capillaries on the surface are stimulated to excessive action by heat, and that any sudden change in the atmosphere, produced either by rain or the exposure of the patient to the night air, is sufficient to destroy that equilibrium in the circulation upon which health depends, in consequence of which the extreme vessels of the Liver sympathising with those upon the surface, arrest the circulation through the portal, Celiac and mesenteric vessels, and thus the Biliary secretion is suspended, and that the Vomiting and purging which occur are altogether an effort of nature to relieve herself of this engargment. Without commenting upon this doctrine of Dr Johnson, I shall merely observe

that Cholera seems to be evidently a gastric affection, partaking of the nature of Bilious and Intermittent fevers. In support of this doctrine it may be urged, that Chol=era is always found to be more prevalent, at that season of the year, when Bilious and Intermittent fevers make their appearance, and whatever may be their predisposing cause, it is evident, that they both have frequently the same exciting cause. What is more common than for a person labouring under the pre=disposing cause of Bilious fever upon getting wet, or exposing himself to the night-air, to be attacked with the disease? the same may be said of Cholera, an attack of which is frequently brought on in the same way. Let a number of persons expose them=selves upon a cold windy day in the month of March, some will be attacked with pleurisy, others with Catarrh, yet no one will deny, that the two diseas=es are not excited by the same cause, or that they both do not consist in inflammation, modified

by the different tissues which it effects, being seated in the one instance in a serous, in the other in a mucous membrane. So of Bilious fever and Cholera Morbus, the same cause which would have produced Bilious fever, by expending itself upon the Stomach and bowels, brings on an attack of Cholera. That the disease in question is evidently gastric in its or=igin, and that the Liver is secondarily affected, I think may be inferred from the Symptoms of the dis=ease. The first discharges always consist of the ordi=nary contents of the stomach, and Bile does not make its appearance, untill the vomiting has been repeated several times; now if Bile were the cause of this dis=ease (as is contended by some,) it ought to be brought up by the first efforts, but the contrary of this is known to take place. Moreover, the disease is fre=quently excited by articles acting immediately upon the stomach itself, as by irregularities either in eating or drinking. A very remarkable instance of this once

came under my knowledge, which I will relate. In the summer of 1823 a company of twelve persons eat of Crabs, which proved to be spoiled, on the night of the same day, they were all, with the exception of three, attacked with Cholera, accompanied with discharg=es of bile, both by vomiting and by stool. In this case, the disease was doubtless brought on by the ac=tion of these articles upon the stomach, and the dis=charges of Bile followed as a secondary effect. Another argument in support of the gastric or=igin of Cholera is, that the most important indi=cation in the treatment, is to allay the irritabile=ty of the stomach; so soon as this is accom=plished, in most cases, the distressing symptoms cease.

Symptoms

Cholera usually comes on with nausea tenderness of the abdomen, pain and dis=tension, which is specedily followed by a severe vomiting

and purging. The matter discharged from the stomach, at first, consists of its ordinary contents, mixed perhaps with phlegm or mucus, while the discharges from the bowels are in the commencement thin and watery, but the disease has not continued long, before they become altered, and now we have copious discharges of bile both by vomiting and by stool. The pulse which from the commencement of the disease was weak and fluttering, becomes still more so, there is usually great thirst, and a severe head ache, arising from sympathy with the stomach; the respiration is hurri=ed, the extremities cold, the surface is also cold and covered with a clammy sweat, and together with these symptoms there is great depression of strength If the patient is not speedily relieved cramps of the muscles of the abdomen and extremities, sinking of the eyes, hiccups, and sinking of the pulse supervening, terminate his existence.

Dissections of those who have

died of this disease, are said to discover the Prima viæ much affected, there being marks of turgescence and inflammation, the Liver is found in a state of turgescence and the Brain in some instances is congested with blood. —Diagnosis—

This disease resembles Intestinal disorders of various kinds. It may be distinguished from Colic, which is sometimes accompanied with vomiting, by the purging which occurs, the bowels in colic remaining obstinately constipated. It is to be distinguished from Diarrhoea and Dysentery, by the stools being pure bile, unmixed with blood or fæces, and also by the rapid prostration of strength, which takes place in Cholera, as well as by the vomiting that occurs, which seldom or never accompanys Diarrhoea or Dysentery in so violent a degree. Cholera morbus is also free from that distressing symptom Tenesmus, by which Dysentery is so peculiarly characterised; by a strict attention to the symptoms that have been detailed

Cholera cannot be confounded with any other disease.

— Prognosis.

The prognosis in this dis-
-ease to one who is not familiar with it, must neces-
-sarily be difficult, as it is formidable in its appear-
-ance and soon hastens to its crisis, whether that be fa-
-tal or otherwise. From the accounts of authors, it
would seem to be much more fatal, when it prevails
as an Epidemic, as was particularly the case at Cal-
-cutta, in the year 1818, where the deaths for several
months amounted to upwards of two hundred in a
week, It seems also to be more fatal in proportion
to the heat of the weather, its mortality being greatest
when the heat is greatest; but fortunately the dis-
-ease has never, I beleive, prevailed in this Country
as an Epidemic, though its ravages are sufficient-
-ly extensive to render it a subject of deep in-
-terest to every one who engages in the practice
of medicine. In forming a prognosis upon each

particular case, the practitioner is to be guided by the existing symptoms. According to Dr Johnson, who has had extensive opportunities of making obser=vations, those cases which were unattended by discharges of bile were uniformly fatal, where=as when bile was discharged in considerable quan=tity, the disease was found more remediable. It may in general be stated, that when the vomiting and purg=ing continue obstinate, attended with great prostra=tion of strength, when the medicines which have been administered are rejected, when the pulse becomes irregular, the extremities cold, the surface cold and covered with a clammy sweat, the eyes sunk and the countenance haggard, the case may be consid=ered as hopeless. But, on the contrary, when the vomiting and purging are neither violent nor ob=stinate, when, though they may have been vi=olent, they yield to the medicines which may be administered; when the medicines are retained by

the stomach, and when together with these, there is a gradual diminution of the more violent symptoms, especially the vomitting and spasms, we may then generally augur favourably of the case.

Treatment

In the treatment of Cholera Morbus, the practitioner should be prompt and decisive, and should call into his aid every remedy calculated to afford relief. It is a disease which terminates so speedily, which exhausts the powers of life so rapidly, that no time is to be lost. Not unfrequently it terminates in 24 hours, sometimes in a much shorter time. The treatment of this disease, will be different, according to the time at which the practitioner may be called. Should the patient have been labouring under the disease for some time and he is nearly exhausted by the violence of the attack, his endeavours, of course, would be to calm irritation

and support nature in her unavailing efforts. Called, however, to a patient, who is just attacked or who has a considerable share of strength remaining, the first indication would be to rid the stomach of its contents; and to effect this, it has been the practice from the remotest periods to the present time to direct the administration of some warm drink, such as warm Chamomile Tea, Chicken water, Toast water or simply warm water. But if I were called to a patient labouring under Cholera, under the circumstances just stated, I should exhibit immediately 20 grs. of Ipecac: and have its operation promoted by the exhibition of warm drinks. Emetics in this case, not only clear the stomach of its contents, but by their wide pervading operation determine blood to the surface, and thus relieve the internal organs which are more or less in a state of congestion; and Ipecac. from its known antispasmodic powers seems as nearly adapted to the case, as there is always more or less spasm

in the disease. The next remedy is venesection, this was extensively employed by the practitioners of India, and with great advantage, but it is a remedy which requires to be used with great circumspection. In making up his mind as to the propriety of abstracting blood, the pulse can seldom be a guide to the practitioner. The disease in its commencement is one of oppression, and not of real debility, the pulse will therefore be found to rise after the operation, and with it an alleviation of the more violent symptoms; in doubtful cases it will always be right to precede the Lancet by the warm bath. This remedy is always of great advantage but particularly in the case now under consideration. By its wide pervading operation it determines blood to the surface, calms the irritability of the stomach and allays spasm.

To sooth that extreme irritability of stomach so peculiarly attendant on this disease various remedies have been employed, among

which opium from the accounts of different authors, seems entitled to the greatest share of confidence, It may be administered as soon as the stomach is evac=uated, but in whatever state of the disease it is employ=ed, it should be preferred in the solid form made into a pill. Should it be rejected by the stomach, it should then be administered in the form of an Enema. 60 gutt Tinc. opii. in a gill of mucilage may be thrown up the rectum as often as may be demanded by circum=stances; or the opium may be administered (provided the stomach will bear it) in the manner practised by Dr Johnson, combined with calomel in the propor=tion of ½ gr of the former to 4 or 5 of the latter. The advantages of this combination are, that the stomach is calmed and at the same time the Liver is restored to its healthy function. This dose is to be repeated every 2 or 3 hours as circumstances may demand.

Small doses of Calomel, frequently administered are said to be highly efficacious in calming the stomach

in this disease, ℥ss is to be given every half hour.

To assist the remedies already enumerated, stimu=lating applications may be made to the surface over the region of the stomach, such as fomentations with warm brandy, or mint, steeped in warm brandy may be applied, or the clove bag, prepared by quilting pul=verized cloves in flannel, wrung out of warm spi=rit may be applied over the region of the stomach. The application of a blister will sometimes arrest the vomiting almost immediately, should the patient be came very weak, stimulants should be administered, warmth should be applied to the extremities by means of warm bricks or bottles filled with warm water. Blisters may also be applied to the ancles and wrists. These remedies will, in ordinary cases be found suf=ficient, but in the violent cases we must resort to more efficient means, in order to produce a prompt=er vesication than can be effected by Cantharides the India practitioners have used and recommended

the application of Nitric acid, which is to be applied over the stomach, 2 parts of the acid mixed with one of water are to be put on by means of a feather or hair pencil, this very speedily produces a sharp pain, the acid is then to be neutralized by a solution of Potash and the sore to be treated as a common blister, Large doses of diluted Sulphuric acid, are said to be highly efficacious in subduing the irritability of the stomach. Small doses of Nitric acid combined with an infusion of Columba are also said to have succeeded in calming the stomach when opium had failed. As the more violent symptoms subside, Calomel should be given in small and repeated doses, with a view to carry off and at the same time correct the morbid secretions, while its operation may be promoted by the Oleum ricini.

After an attack of this disease the patient is left very much debilitated, requiring with a view to strengthen the stomach as well as the system, some mild Tonic such as Co

-lumba or Gentian. Costiveness must be obviated by small doses of Rhubarb. I have said nothing of diet in this disease, because it seldom becomes necessary for the patient to take food being of so short a continuance, but on recovering from an attack, the strictest attention should be paid to regimen. The diet should consist of the lightest and most digestible articles. The patient should avoid exposing himself to the hot sun or night-air, moderate exercise so as not to produce fatigue will be serviceable, and above all, he should endeavour to keep up the healthy action of the skin by wearing flannel, this is of the utmost importance and should by no means be neglected.

With these observations I conclude my remarks on Cholera Morbus, in doing which, candour compels me to acknowledge the assistance I have derived from Buller, Thomas, Johnson, and particularly from the distinguished professor, who now so ably fills the chair of

the Institutes and practice of Medicine in the University of Pennsylvania.